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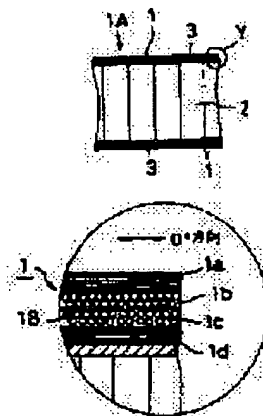
## (54) SUPER-LIGHTWEIGHT SANDWICH PANEL

(57)Abstract:

PURPOSE: To increase the flexural strength of a super-lightweight sandwich panel used to a solar cell of an artificial satellite by forming unidirectional carbon fiber reinforced plastics into a skin of four-layer structure, in which the fiber direction on the outsides is arranged to intersect perpendicularly to the fiber direction of the middle two layers, and bonding this skin to the surface of an Al honeycomb core.

CONSTITUTION: From unidirectional carbon fiber reinforced plastic a skin 1 is formed in four-layers structure consisting of No.1 layer 1a thru No.4 layer 4d. They are laminated in such an arrangement that the No.1 and No.4 layers 1a, 1d are laid in a fiber direction of 0°, while the No.2 and No.3 layers 1b, 1c are in a fiber direction of 90°.

This skin 1 is bonded to the surface of an Al honeycomb core 2 with an epoxy adhesive 3 to yield a super-lightweight sandwich panel 1A.



## LEGAL STATUS

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